

<http://ansinet.com/itj>

ITJ

ISSN 1812-5638

INFORMATION TECHNOLOGY JOURNAL

ANSI*net*

Asian Network for Scientific Information
308 Lasani Town, Sargodha Road, Faisalabad - Pakistan

Game Analysis Model for Behavior Reaction after Breach of Employees' Psychological Contract*

¹Zhang Shibin and ²Zhao Yong

¹School of Management,

Hefei University of Technology, Hefei, Anhui, 230009, China

²Urban Management Research Center,

Anhui Jianzhu University, Hefei, Anhui 230601, China

Abstract: By introducing the behavior reaction types of the employees' to the organization, a basic analysis model of the behavior reaction after the breach of the employees' psychological contract is built based on the discrepancy model of the employees' psychological contract. Taking into account such internal and external factors of the enterprise as the optional opportunity on the labor market and the organization intervention, etc., this study analyzed whether active construction behavior or negative-destructive behavior occurs after breach of the employee's psychological contract and it is also affected by the interaction between the organization and employees, this study also analyzed this interaction and built the game analysis model of the behavior reaction after the breach of the employees' psychological contract.

Key words: Psychological contract breach, behavior reaction, game analysis

INTRODUCTION

Strategies resulting from global competition, such as process reengineering, strategic alliance, business outsourcing, merger and restructuring and organization flattening, make the organization probably reluctant to or have no sufficient capability to fulfill their commitment to employees, resulting in the breach of employees' psychological contract more and more frequent. The breach of psychological contract exerts a negative effect on employees' attitude and behavior and further causes loss of organizational effectiveness (CIPD, 2009). Therefore, the study of psychological contract breach not only has theoretical value but also has important practical significance. But current study lays more focus on the analysis of the influence factors of psychological contract breach, whereas there is little study on the interaction between organization and employees. This study analyzes the interaction between organization and employees and builds the game analysis model of the behavior reaction after the breach of the employees' psychological contract by introducing employees' EVLN psychological and behavior reaction model based on the discrepancy model and taking into account the influence of such internal and external factors of the enterprise as organizational practice and labor market.

BASIC MODEL ANALYSIS OF THE BEHAVIOR REACTION AFTER THE BREACH OF THE EMPLOYEES' PSYCHOLOGICAL CONTRACT

The discrepancy model of Turnley and Feldman (1999) is the 2nd classic theoretical model for psychological contract breach. The model names the situation that the organization fails to actually fulfill its commitment (namely, the psychological contract breach raised by Morrison and Robison) as "discrepancy" (also some Chinese scholars translate it as "Breach"). Turnley and Feldman believe that such three factors as the source of employees' expectation, the specific elements of breach and the characteristics of breach will directly make individual employees perceive breach as a psychological contract breach. Based on this, Turnley and Feldman also indicate the behavior reaction of employees after the occurrence of psychological contract breach and specially point out that the relationship between psychological contract breach and employees' behavior reaction will be affected by such three adjusting variables as individual difference, organization practice and labor market forces (Fig. 1).

It can be seen from Fig. 1 that the employees' behavior reaction after the psychological breach is not only affected by such internal factors as employees'

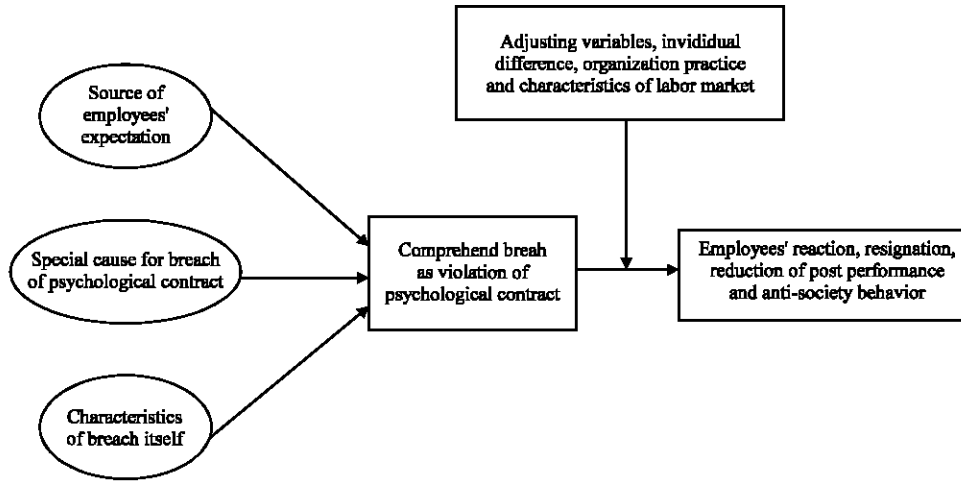


Fig. 1: Breach model of psychological contract (Turnley and Feldmand, 1999)

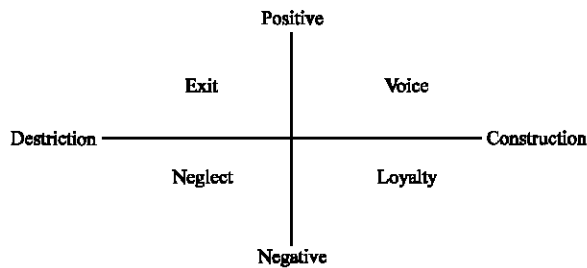


Fig. 2: Individual exit-voice-loyalty-neglect reaction classification model

individual difference, etc. but also restrained by such external conditions as labor market characteristics and organization practice, etc. Among them, the labor market characteristics mainly refer to the external optional opportunities provided by the labor market for the employees and the organization practice mainly refers to the intervention on the employees' organizational behavior by the organization, e.g., human resources motivation or restraint measures. Therefore, the employees' behavior reaction selection after the breach of the psychological contract not only depends on the internal factors of individual employees and these external factors but also depends more on the interaction between organization and employees. Below the game analysis method is used to analyze the interaction between organization and employees and then build the game analysis model of the behavior reaction after the breach of the employees' psychological contract.

According to EVLN model, the reaction behaviors of the employees to the organization behavior are divided into four types, namely exit, voice, loyalty and neglect. The four behaviors correlate with each other to constitute

a system which form the classification model as shown in Fig. 2 (Farrell, 1983). If they are divided according to positive-negative and destructive-constructive dimensions. In the destructive-constructive dimension, voice and loyalty are a form of constructive reaction, in which individuals attempt to get and maintain satisfactory employment relationship; whereas, exit and neglect are a form of destructive reaction which will aggravate the employment relationship. In the positive-negative dimension, exit and voice are a kind of positive reaction mechanism, thereby employees try to settle their dissatisfaction with the organization; whereas, loyalty and neglect reflect more passiveness and negativeness of employees in the employment relationship, here "negative" refers to the effect of an action rather than the reaction itself (Rusbult *et al.*, 1988).

For the convenience of analysis, this study simplifies the employees' reaction behavior to the organization into two major categories, i.e., positive-constructive behavior and negative-destructive behavior to obtain the basic analysis model of employees' behavior reaction after the breach of their psychological contract in combination with the discrepancy model of psychological contract, as shown in Fig. 3.

GAME ANALYSIS MODEL OF THE BEHAVIOR REACTION AFTER THE BREACH OF THE EMPLOYEES' PSYCHOLOGICAL CONTRACT

It can be known from the analysis model in Fig. 3, when the employees' psychological contract breaks, the occurrence of positive-constructive behavior or negative-destructive behavior mainly depends on the influence of the external optional opportunity (the

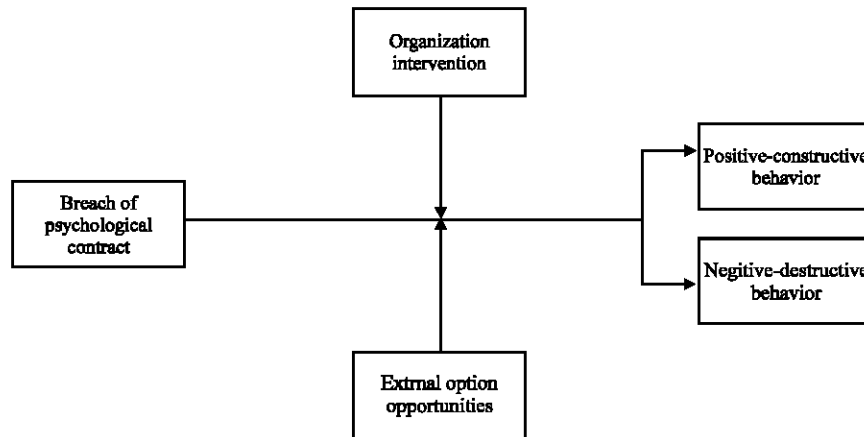


Fig. 3: Basic model of the behavior reaction analysis after breach of the employees' psychological contract

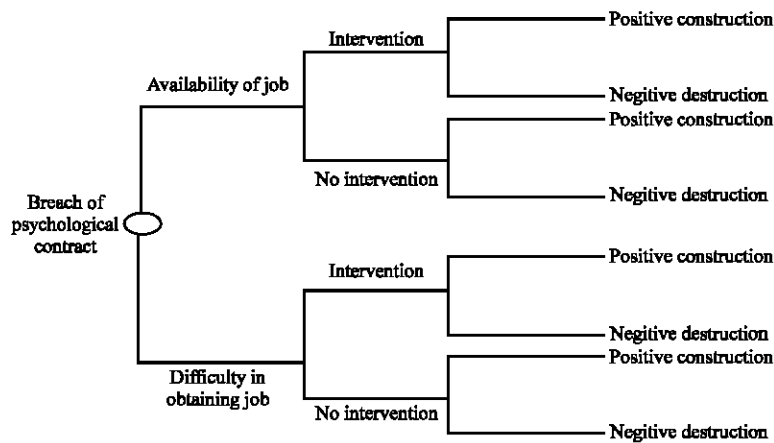


Fig. 4: Employees' behavior reaction process model after the breach of their psychological contract

availability of job) and degree of organization intervention. Suppose that there are two states available for choice in the availability of job, i.e., availability of job and difficulty in obtaining the job; and there are also two alternative states for enterprise behavior, i.e., intervention and non-intervention, whereas employees' choice is positive-constructive behavior and negative-destructive behavior, then the employees' behavior reaction process model after the breach of their psychological contract can be represented by Fig. 4.

Here, intervention refers to human resource motivation or restraint measures (collectively referred to as organizational constraints) adopted by the enterprise, including reassuring employees in thought, implementing salary incentive, providing learning or development opportunities, etc., including executing punishment on employees as well. Whereas non-intervention refers to that the enterprise still adopts laissez-faire management

policy after having perceived the breach of the employees' psychological contract.

Theoretical hypothesis: Assume that both enterprise and employees are players and are "homo economicus", namely, the target of decision-making is benefit maximization (Zhang, 1996). Enterprises pursue profit maximization and individual employees pursue utility maximization. Employees' strategy is positive construction or negative destruction, whereas enterprise's strategy is to intervene or not to intervene in the problem of the psychological contract breach. At the same time, assume that the enterprise will have to pay supervision cost as long as supervision takes place.

Model building: Under the above assumptions, assume that employees take positive-constructive behavior without intervention to employees and the profit of the

	Negative-destructive behavior	Positive-constructive behavior
Intervene	$R-R_1-C_1+W_2$ $W-W_2+W_1$	$R-C_1-C_2$ $W+W_1$
Not intervene	$R-R_1$ $W+W_1$	R W

Fig. 5: Game model of employees' behavior reaction

enterprise (the contribution made by employees to the enterprise) is represented by R and the income of employees (the reward paid by the enterprise to employees) is W . In the case of enterprise intervention, if employees take negative-destructive behavior, then the enterprise suffers the loss of the enterprise earnings R_1 , however, when employees take negative-destructive behavior, their income is increased by W_1 (otherwise they will not destruct negatively). In the case of enterprise intervention, the daily cost of intervention paid by the enterprise is C_1 . If employees take negative-destructive behavior, the enterprise will similarly reduce its earnings by R_1 but because of the presence of intervention, when employees destruct negatively, they must pay the penalty of W_2 to the enterprise. If the enterprise takes incentive measures such as implementing salary incentive and providing learning or development opportunities and employees do not take negative-destructive behavior, then employees will gain an additional income of W_3 . Besides the daily supervision cost C_1 , the enterprise also needs to pay the supervision cost C_2 for implementation of incentive measures. Thus, the game status of the two players is as shown in Fig. 5.

Model analysis: First analyze enterprise's decision-making behavior, suppose the probability that employees take negative-destructive act is a ($0 \leq a \leq 1$), if the enterprise intervenes, then the gain which it may obtain is $U_1 = (R-R_1-C_1+W_2)a + (R-C_1-C_2)(1-a)$; otherwise, the gain which it may obtain is $U'_1 = (R-R_1)a + R(1-a)$.

Let $U_1 = U'_1$, then we get:

$$a^* = \frac{C_1 + C_2}{C_2 + W_2} \tag{1}$$

When $a < a^*$, $U_1 < U'_1$, the enterprise chooses not to intervene; when $a > a^*$, $U_1 > U'_1$, the enterprise chooses to intervene; and when $a = a^*$, particular case depends on particular analysis.

In Eq. 1, the critical probability whether then enterprise intervenes is directly related to its daily supervision cost C_1 and penalty W_2 ; the larger C_1 , the bigger a^* , whereas the larger W_2 , the smaller a . It is apparent that in this thesis we always want a^* to be as big as possible so that the enterprise can have bigger activity space on the premise that its interest does not suffer loss

and this analysis agrees with actual situation. Because the larger C_1 , the larger a^* , indicating that if daily supervision cost is high, it is not necessary for the enterprise to practice supervision for a little negative-destructive act and the supervision work should be completed in the daily work. The larger W_2 , the smaller a^* , indicating that if penalty is too high, employees will not expose their negative-destructive act easily, however, once negative-destructive act occurs, the enterprise should intervene immediately, otherwise the interest of the enterprise will suffer loss.

Then analyze employees' decision-making behavior below, suppose the probability of enterprise intervention is b ($0 \leq b \leq 1$), if employees choose negative-destructive act, the gain which employees may obtain is $U_2 = (W-W_2+W_1)b + (W+W_1)(1-b)$; otherwise the gain which employees may obtain is $U'_2 = (W+W_3)b + W(1-b)$.

Let $U_2 = U'_2$, we get:

$$b^* = \frac{W_1}{W_2 + W_3} \tag{2}$$

When $b > b^*$, $U_2 > U'_2$, employees choose negative-destructive act; when $b < b^*$, $U_2 < U'_2$, employees choose not to resign; when $b = b^*$, particular cases depend on specific analysis.

Equation 2 shows that the critical probability whether employees take negative-destructive act is related to W_1 , W_2 and W_3 . In this thesis, b^* is as small as desirable (proving is omitted here). In fact, numerator W_1 in the equation represents the opportunity of job that can chosen on labor market, that is, availability. When the denominator is constant, the larger W_1 , the easier to get a job and the more possibility that employees choose negative-destructive act; whereas denominator W_2 and W_3 represent the degree of organization intervention. If the numerator is unchanged, then when the penalty is high or new gain of positive-constructive behavior is high, b^* is small and possibility that employees choose positive-constructive behavior is big and vice versa. However, when both numerator and denominator in Eq. 2 change at the same time, the magnitude of b^* requires specific analysis.

When there are more optional opportunities and it is easy to get job but enterprise restraining force (including motivation and restraint) is bigger, employees will still choose positive-constructive behavior.

So, the hybrid equilibrium strategy between the enterprise and employees is:

$$(a^*, b^*) = \left[\frac{C_1 + C_2}{C_2 + W_2}, \frac{W_1}{W_2 + W_3} \right]$$

that is, the strategy that employees choose to resign at the probability of:

$$\frac{C_1 + C_2}{C_2 + W_2}$$

and the enterprise chooses supervision at the probability of:

$$\frac{W_1}{W_2 + W_3}$$

is taken as the hybrid equilibrium strategy.

It can be seen from this that when the external conditions are fixed, employees' behavior decision after breach of psychological contract is related to personnel supply and demand on labor market and degree of organization restraint and whether negative-destructive act occurs or not is the result of combined effect of supply and demand condition of labor market and organizational constraints. For an enterprise, higher daily supervision cost will reduce the possibility for the enterprise to implement intervention, increased punishment that the enterprise given to negative-destructive act will increase the possibility of intervention implementation.

CONCLUSION

It can be known from the analysis of the above model that:

The behavior reaction mechanism of employees' psychological contract breach is very complicated. Factors that affect employees' behavior reaction include internal factors of the employee himself and external factors like labor market and organizational constraints but as an enterprise, especially for human resources managers of the enterprise, they should pay more attention to the effect of mutual interaction between

enterprise organizational constraints and the enterprise and employees because these factors can be controlled by managers.

Necessary intervention in employees' behavior after psychological contract breach can reduce probability that employees take negative-destructive act to a certain extent in order to protect the interest of the enterprise against losses but this kind of intervention should be reflected in daily management work and love and care for its employees; therefore, the enterprise should set up a series of management system in its usual management work to pay attention to employees' ideological trend, care about their work and life and take necessary measures in advance.

In order to avoid negative-destructive act of employees, it is feasible that the enterprise let employees pay a certain amount of penalty in the case of breach by the employees according to the regulations of its own management system but the amount of penalty must be suitable to actual circumstances, otherwise the enterprise will pay more supervision cost.

ACKNOWLEDGMENT

The study was supported by Doctor research fund of Anhui Jianzhu University.

REFERENCES

- CIPD Report, 2009. The psychological contract. Chartered Institute of Personnel and Development, May 15, 2009.
- Farrell, D., 1983. Exit, voice, loyalty and neglect as responses to job dissatisfaction: A multidimensional scaling study. *Acad. Manage. J.*, 26: 596-607.
- Rusbult, C.E., D. Farrell, G. Rogers and A.G. Mainus, 1988. Impact of exchange variables on exit, voice, loyalty and neglect: An integrative model of responses to declining job satisfaction. *Acad. Manage. J.*, 31: 599-627.
- Turnley, W.H. and C.A. Feldman, 1999. Discrepancy model of psychological contract breach. *Human Resource Manage. Rev.*, 9: 367-386.
- Zhang, W.Y., 1996. *Games Theory and Information Economic*. SDX Joint Publishing Company, Shanghai People's Press, Shanghai.